

WHAT IS CLAIMED IS:

1. A method for speech recognition, comprising:
  - receiving digital data representation of speech having at least one word;
  - searching a library containing digital data representation of a plurality of words and matching the digital data representation of the at least one word to digital data representation of a word in the library;
  - determining the number of syllables in the digital data representation of the at least one word; and
  - providing an ASCII representation of the matched word in response to the number of syllables of the at least one word being identical to the number of syllables of the matched word in the library.
2. The method, as set forth in claim 1, further comprising mapping the digital data representation of the at least one word to an ASCII representation of the at least one word.
3. The method, as set forth in claim 1, wherein providing the ASCII representation of the matched word comprises displaying the ASCII representation thereof on a computer screen.
4. The method, as set forth in claim 1, wherein receiving digital data representation of speech comprises receiving a binary bit stream output from a sound card.
5. The method, as set forth in claim 1, wherein receiving digital data representation of speech comprises receiving a digital waveform representation of the speech output from a sound card.
6. The method, as set forth in claim 1, further comprising:
  - receiving a user input having letters in the at least one word of the speech; and
  - storing the user input letters and associating the letters with the received digital data representation of the at least one word.

7. The method, as set forth in claim 6, wherein receiving a user input comprises receiving user input entered via a keyboard.

5 8. The method, as set forth in claim 6, wherein receiving a user input comprises receiving user auditory input from a sound card.

10 9. The method, as set forth in claim 1, wherein matching the digital data representation of the at least one word to digital data representation in the library comprises matching waveform frequency, period and amplitude of the digital data representation of the at least one word to waveform frequency, period and amplitude of the digital data representation of words in the library.

100 200 300 400 500 600 700 800 900 1000

10. A method for speech recognition, comprising:  
receiving digital waveform data representation of continuous speech having at  
least one word;

5 searching a library containing digital waveform data representation of a  
plurality of words and matching the digital waveform data representation of the at  
least one word to digital waveform data representation of a word in the library by  
matching at least waveform frequency, period and amplitude of the digital waveform  
data representation of the at least one word to waveform frequency, period and  
amplitude of the digital waveform data representation of words in the library;

10 determining the number of syllables in the digital waveform data  
representation of the at least one word; and

15 providing an ASCII representation of the matched word in the library in  
response to the number of syllables of the at least one word being identical to the  
number of syllables of the matched word in the library.

11. The method, as set forth in claim 10, further comprising:

receiving a user input having letters in the at least one word of the speech in  
response to not finding a word match in the library; and

20 storing the user input letters and associating the letters with the received  
digital data representation of the at least one word.

12. The method, as set forth in claim 10, further comprising:

displaying a list of closest word matches from the library in response to not  
finding an identical word match in the library;

25 receiving a user selection of a word from the displayed list; and

storing the user selected word and associating the letters thereof with the  
received digital data representation of the at least one word.

30 13. The method, as set forth in claim 10, further comprising mapping the  
digital waveform data representation of the at least one word to an ASCII  
representation of the at least one word.

14. The method, as set forth in claim 10, wherein providing the ASCII representation of the matched word comprises displaying the ASCII representation thereof on a computer screen.

5 15. The method, as set forth in claim 10, wherein receiving digital waveform data representation of speech comprises receiving a binary bit stream output from a sound card.

10 16. The method, as set forth in claim 10, wherein receiving digital waveform data representation of speech comprises receiving a digital waveform representation of the speech output from a sound card.

15 17. The method, as set forth in claim 11, wherein receiving a user input comprises receiving user input entered via a keyboard.

18. The method, as set forth in claim 11, wherein receiving a user input comprises receiving user auditory input from a sound card.

20 19. The method, as set forth in claim 10, further comprising:  
forming a document using a collection of the matched words; and  
transmitting the document to a recipient.

20. A speech recognition system, comprising:

a digital representation of a user's spoken speech;

5 a waveform matching process operable to receive the digital speech representation and match waveform characteristics thereof to characteristics of model waveforms stored in a library, the matched model waveform each having an ASCII representation associated with each word in the spoken speech;

a syllable matching process operable to receive the digital speech representation and determine the number of syllables in each word in the spoken speech and verify the matched model waveform;

10 a display screen operable to display the ASCII representation of the matched model waveform.

21. The system, as set forth in claim 20, further comprising a ASCII mapping module operable to convert the digital speech representation to ASCII.

15 22. The system, as set forth in claim 20, further comprising a training process operable to receive a user input of letters comprising a word in the spoken speech, and associate and store the received letters with the digital speech representation thereof.